REMARKS

Claims 25-28, 38, and 49-54 are presently pending in this application.

We acknowledge the Examiner's indication that claims 26, 27, and 53 would be allowable if written in independent form including all of the limitations of the base claim and any intervening claims.

The Examiner rejected Claims 25, 38, 49, 52, and 54 under 35 U.S.C. § 102(a) as being anticipated by Alfano et al. (U.S. 5,150,248). We note, however, that contrary to what the Examiner appears to believe Alfano does not teach all elements of claim 25.

We still believe, as we previously argued, that Alfano does not teach or suggest "...a beam conditioner which during operation introduces a sequence of different shifts in a selected parameter of each of the first and second beams, said selected parameter selected from a group consisting of phase and frequency," as recited in claim 25. The Examiner said he was not persuaded by our argument because "the relationship between time and frequency (frequency = 1 / period) suggests that the modulation in time duration will also modulate the frequency as well."

But contrary to what the Examiner seems to believe, Alfano's modulation of the time duration of his pulses does not amount to modulation of the frequency of the beam. We note that Alfano's system in Fig. 2 uses laser pulses. For laser pulses the term "frequency" may refer to two distinct properties: (1) the light frequency, which is inversely proportional to the light wavelength; and (2) the pulse frequency or "repetition rate" of the pulses. Alfano's modulation of the temporal duration of the pulses affects neither of these two properties. Specifically, we note that the "period" of a pulse beam (from which its frequency can be computed) is the time difference between the beginning of one pulse and the beginning of the next pulse. When Alfano's system increases or decreases the temporal duration of a pulse, it increases or decreases the duration of the "on" period, as depicted in his Fig. 2(a). But the Examiner has pointed to nothing that would lead one to conclude that Alfano also changes the period of his pulse beam. Moreover, we could find no support in Alfano that he changes the period of his pulse beam, i.e. when the next pulse occurs relative to the beginning of the last pulse. And so there is no basis for concluding that he changes the frequency of his pulse beam by changing the duration of his pulses.

More significantly, Alfano's system also does not introduce "a sequence of different shifts in a selected parameter of each of the first and second beams." While Alfano's system starts with two beams of different frequencies, it does not change one of those two beams, namely, the intense beam, which he eventually filters out with filter 33. Alfano only modifies the other beam, namely, the weak beam, such that the output beam 57 includes temporally expanded or compressed versions of the weak pulses. Neither the system depicted in Fig. 2, nor any other system disclosed by Alfano, includes circuitry that modifies the pulse duration of both of two beams let alone introduces a sequence of shifts in either frequency or phase of both of two beams.

Claim 38, which is a method claim, includes limitations that are similar to the ones discussed above in connection with claim 25. More specifically, it recites "introducing a sequence of different shifts in a selected parameter of each of the first and second beams, said selected parameter selected from a group consisting of phase and frequency." As we discussed above, Alfonso does not teach or suggest these features.

For the reasons stated above, we believe that the claims are allowable and therefore ask the Examiner to allow them to issue.

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Respectfully submitted,

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